

What is the relationship between eating frequency and body weight in adults?

Conclusion

Evidence is insufficient to determine whether frequency of eating has an effect on overweight and obesity in children and adults.

Grade: Limited

Overall strength of the available supporting evidence: Strong; Moderate; Limited; Expert Opinion Only; Grade not assignable For additional information regarding how to interpret grades [click here](#).

Evidence Summary Overview

The literature review identified one prospective cohort study (van der Heijden, 2007). The study investigated the association between food patterns and long-term weight gain in US men over 10 years. An increased number of eating occasions in addition to three standard meals was associated with a higher risk of 5 kg weight gain over time.

The Committee did not review the literature on the use of eating frequency as a tool for adults actively losing weight.


Evidence Summary Paragraphs

Cohort Studies (1)

van der Heijden A et al, 2007 (positive quality) conducted a prospective cohort study in the United States and investigated the association between breakfast consumption and long-term weight gain in adult men over a 10-year period. Subjects were participants in the Health Professionals Follow-up Study. Participants reported their weight on each biennial questionnaire and weight change was defined as the difference between weight reported in 1992 and 2002. Breakfast consumption and eating frequency (eating occasions per day) was assessed using a semi-quantitative food frequency questionnaire (FFQ). The final sample included 20,064 men. An increased number of eating occasions in addition to three standard meals was associated with a higher risk of 5 kg weight gain (HR=1.15, 95% CI 1.06-1.25) for at least two vs. zero eating occasions (P<0.0001). The authors concluded that a greater frequency of eating occasions was associated with weight gain over time in men.

 [View table in new window](#)


Author, Year, Study Design, Class, Rating	Participants/Location	Methods	Outcomes

<p>van der Heijden AA, Hu FB et al, 2007</p> <p>Study Design: Sub-analysis of the Health Professional Follow-up Study, which was a prospective cohort study</p> <p>Class: B</p> <p>Rating: </p>	<p>N=20,064 men.</p> <p>Location: United States.</p>	<p>Subjects were participants in the Health Professionals Follow-up Study.</p> <p>Participants reported their weight on each biennial questionnaire, and weight Δ was defined as the difference between weight reported in 1992 and 2002.</p> <p>Breakfast consumption and eating frequency (eating occasions per day) was assessed using a semi-quantitative FFQ.</p>	<p>An \uparrow number of eating occasions in addition to three standard meals was associated with a higher risk of 5kg weight gain (HR=1.15, 95% CI 1.06-1.25) for at least two vs. zero eating occasions (P<0.0001).</p>
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Research Design and Implementation Rating Summary

For a summary of the Research Design and Implementation Rating results, [click here](#).

Worksheets

 [van der Heijden AA, Hu FB, Rimm EB, van Dam RM. A prospective study of breakfast consumption and weight gain among US men. *Obesity* \(Silver Spring\). 2007 Oct; 15\(10\): 2,463-2,469.](#)